09769401.0110

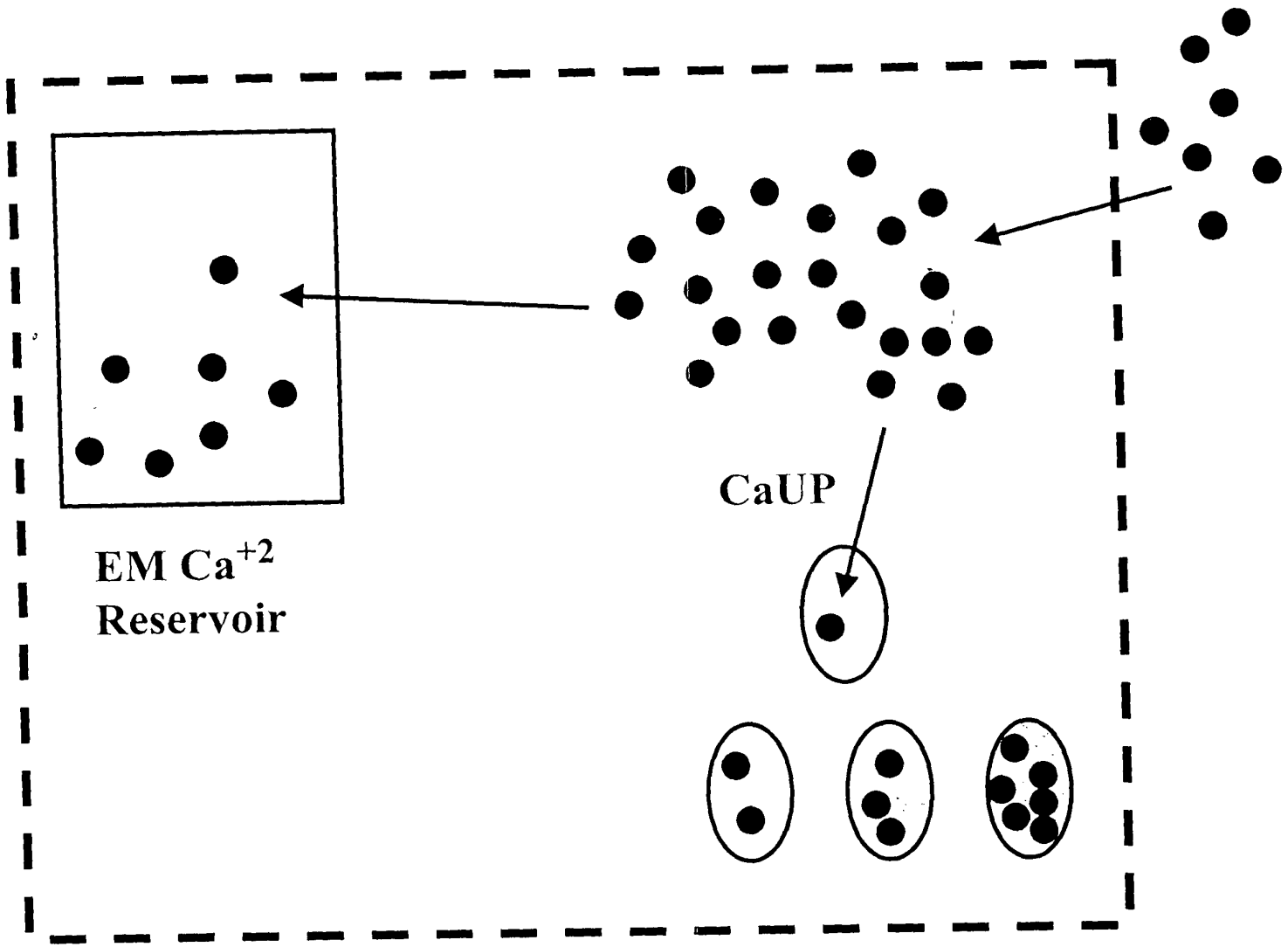


Figure 1

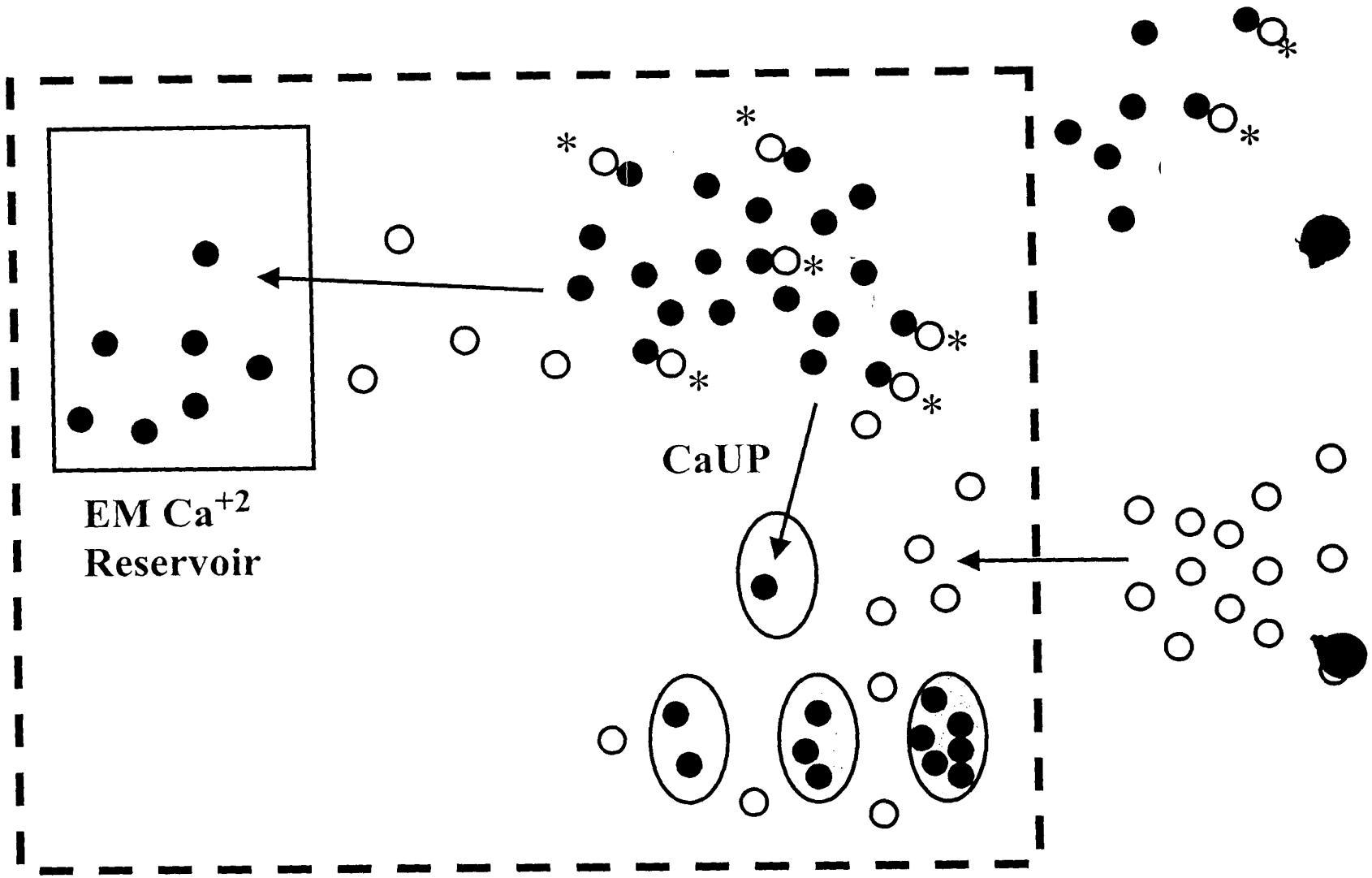


Figure 2

T09TTO"hOT59Z60

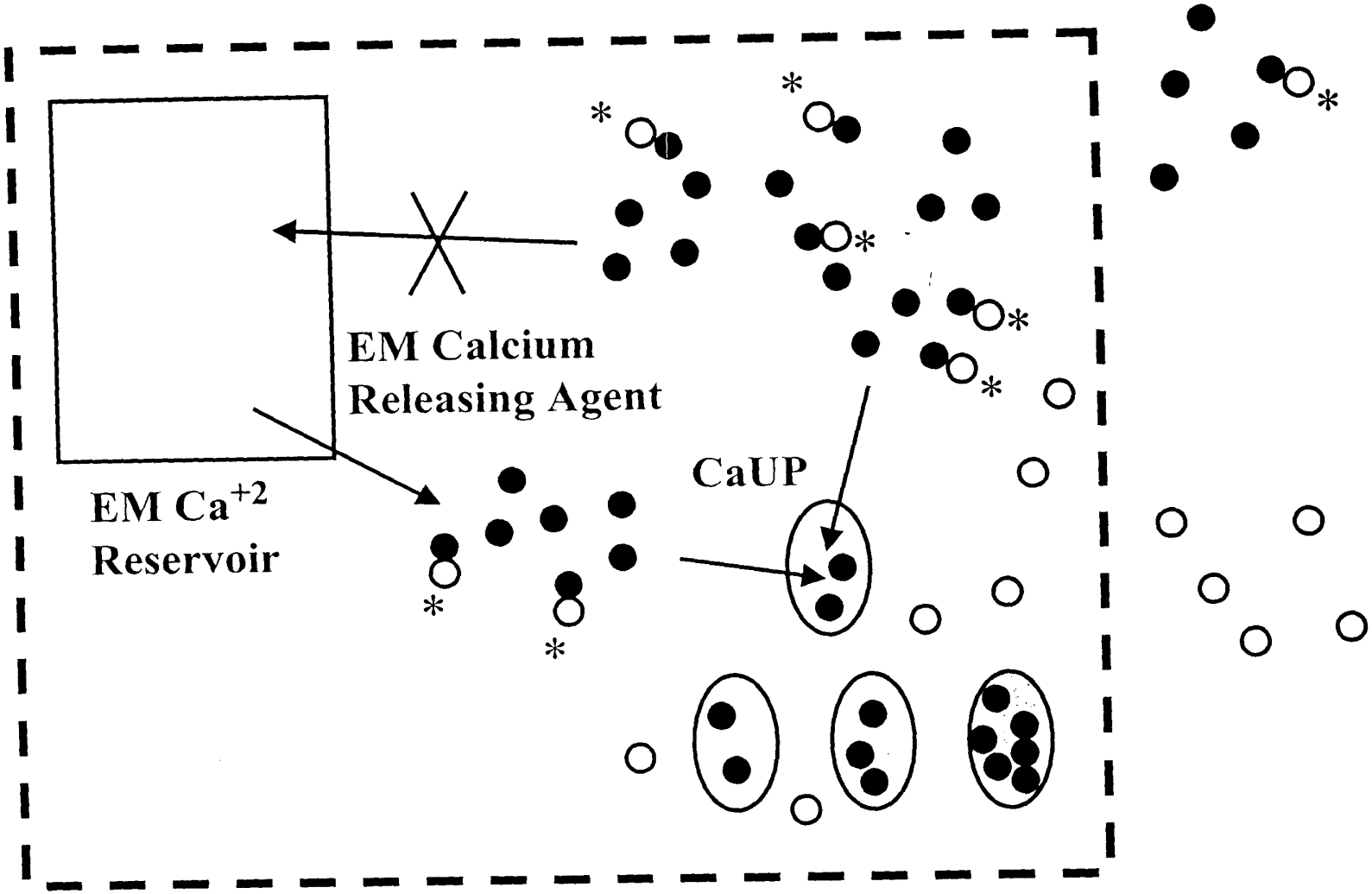


Figure 3

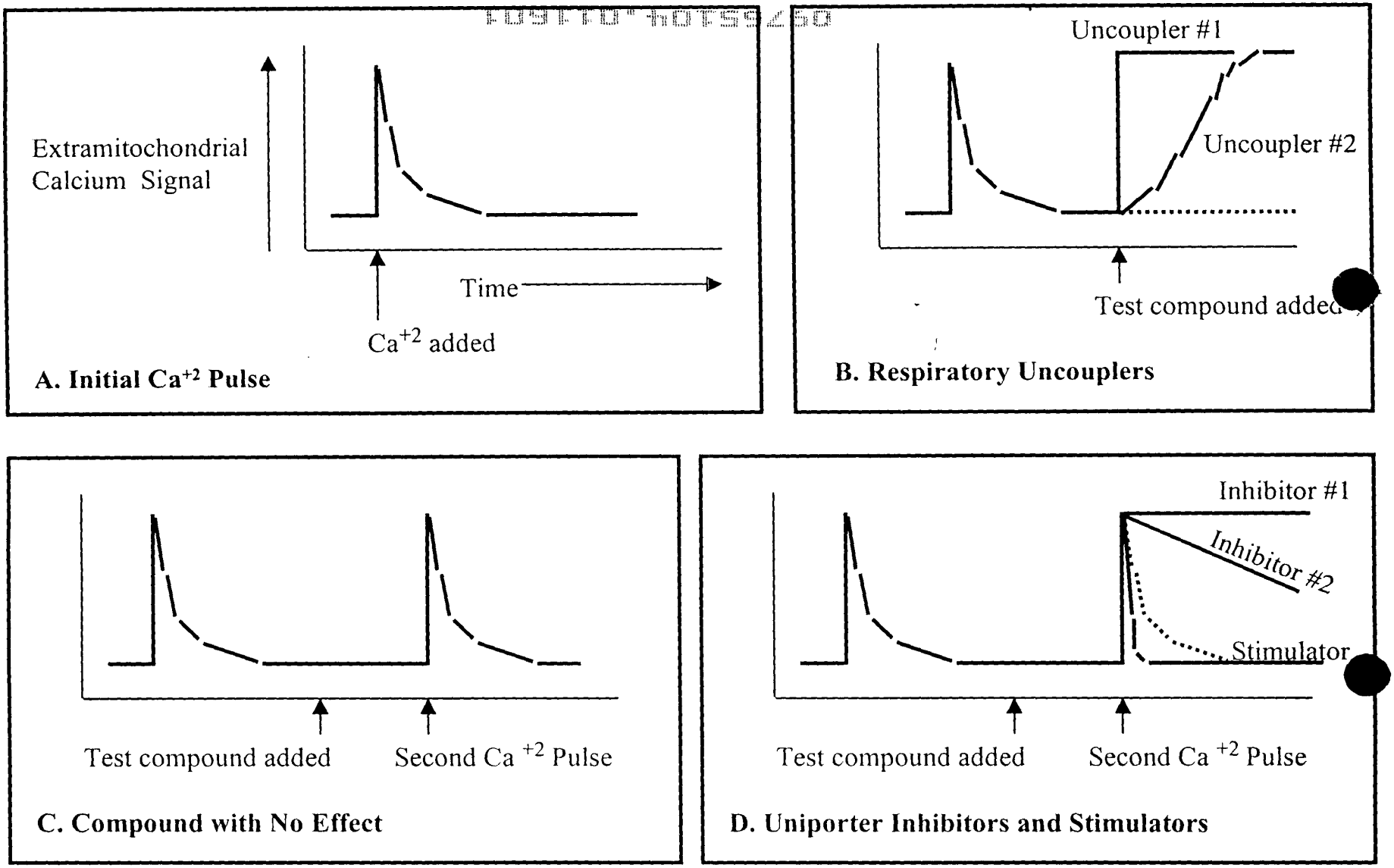

Extramitochondrial
Calcium Signal
Time
Ca+2 added
A. Initial Ca+2 Pulse
Uncoupler #1
Uncoupler #2
Test compound added
B. Respiratory Uncouplers
Test compound added
Second Ca +2 Pulse
C. Compound with No Effect
Inhibitor #1
Inhibitor #2
Stimulator
Test compound added
Second Ca +2 Pulse
D. Uniporter Inhibitors and Stimulators

Figure 4

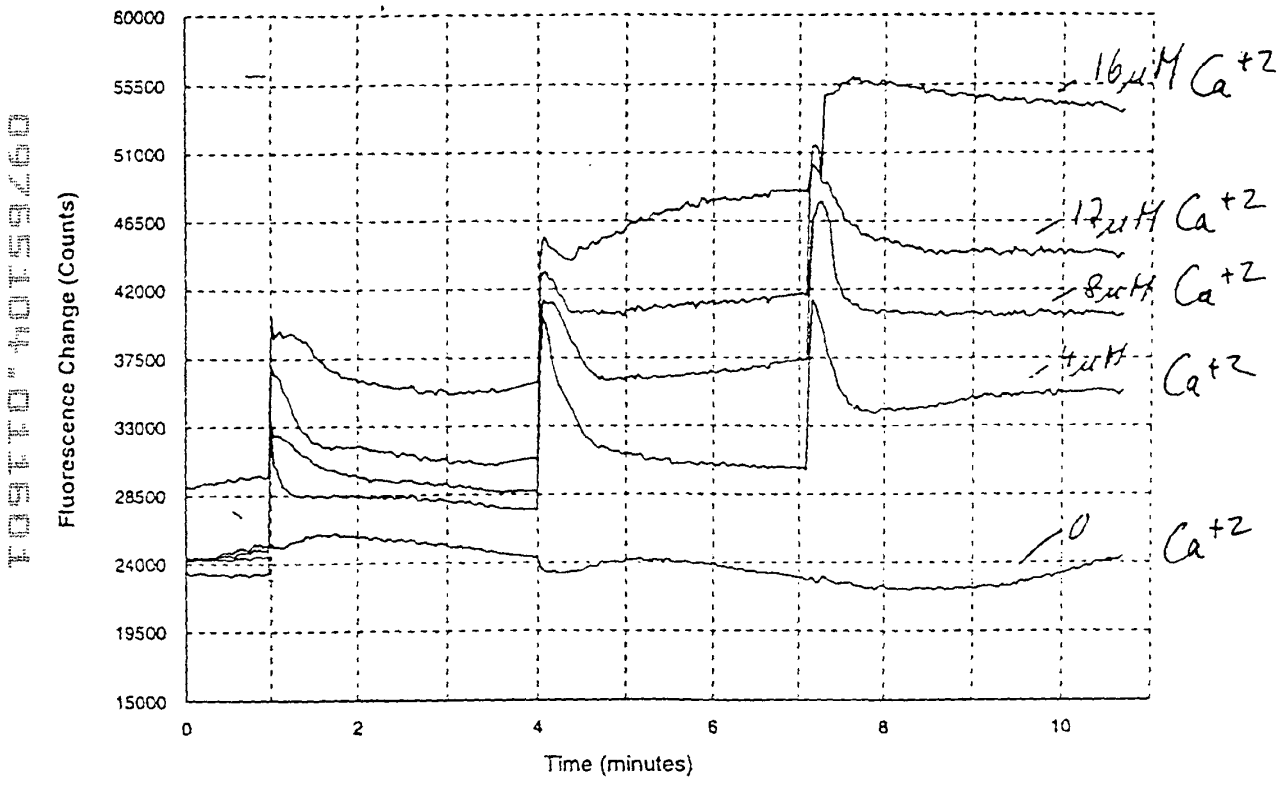

60000
55500
51000
46500
42000
37500
33000
28500
24000
19500
15000
0
2
4
6
8
10
Time (minutes)
Fluorescence Change (Counts)
16 μM Ca+2
8 μM Ca+2
4 μM Ca+2
0 Ca+2

FIGURE 5

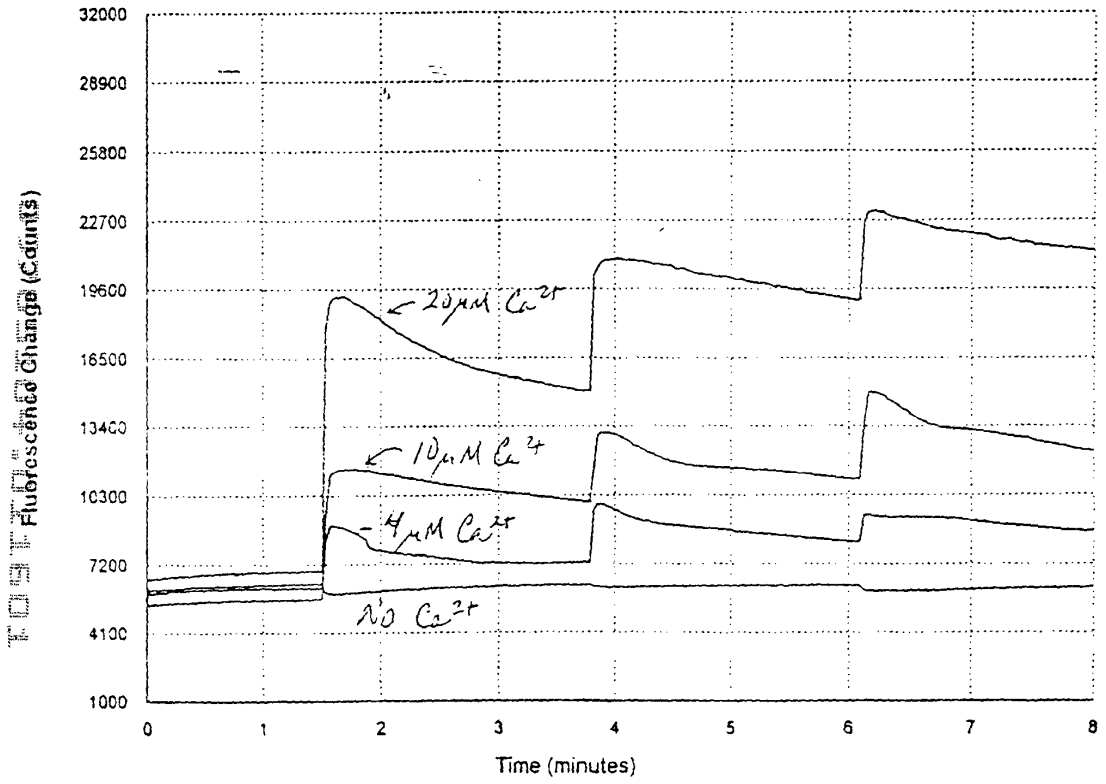

32000
28900
25800
22700
19600
16500
13400
10300
7200
4100
1000
0
1
2
3
4
5
6
7
8
Time (minutes)
20μM Ca2+
10μM Ca2+
4μM Ca2+
NO Ca2+

FIGURE 6

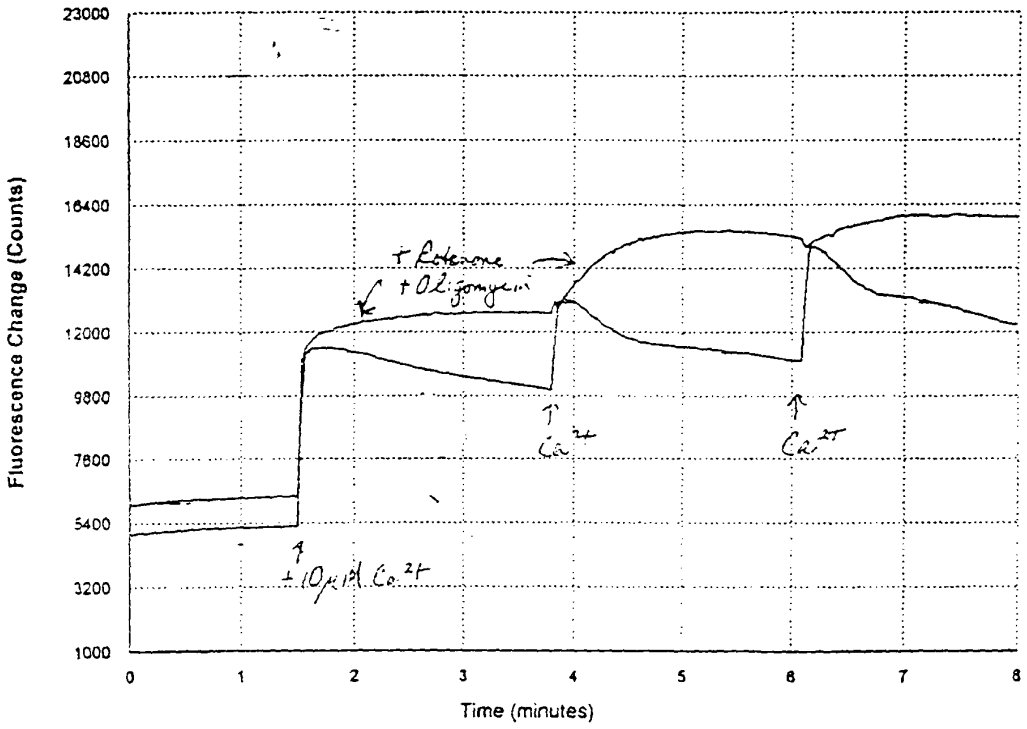

Fluorescence Change (Counts)
23000
20800
18600
16400
14200
12000
9800
7600
5400
3200
1000
0
1
2
3
4
5
6
7
8
Time (minutes)
+ Rotenone
+ Oligomycin
+ 10 μM Ca2+
Ca2+
Ca2+

FIGURE 7

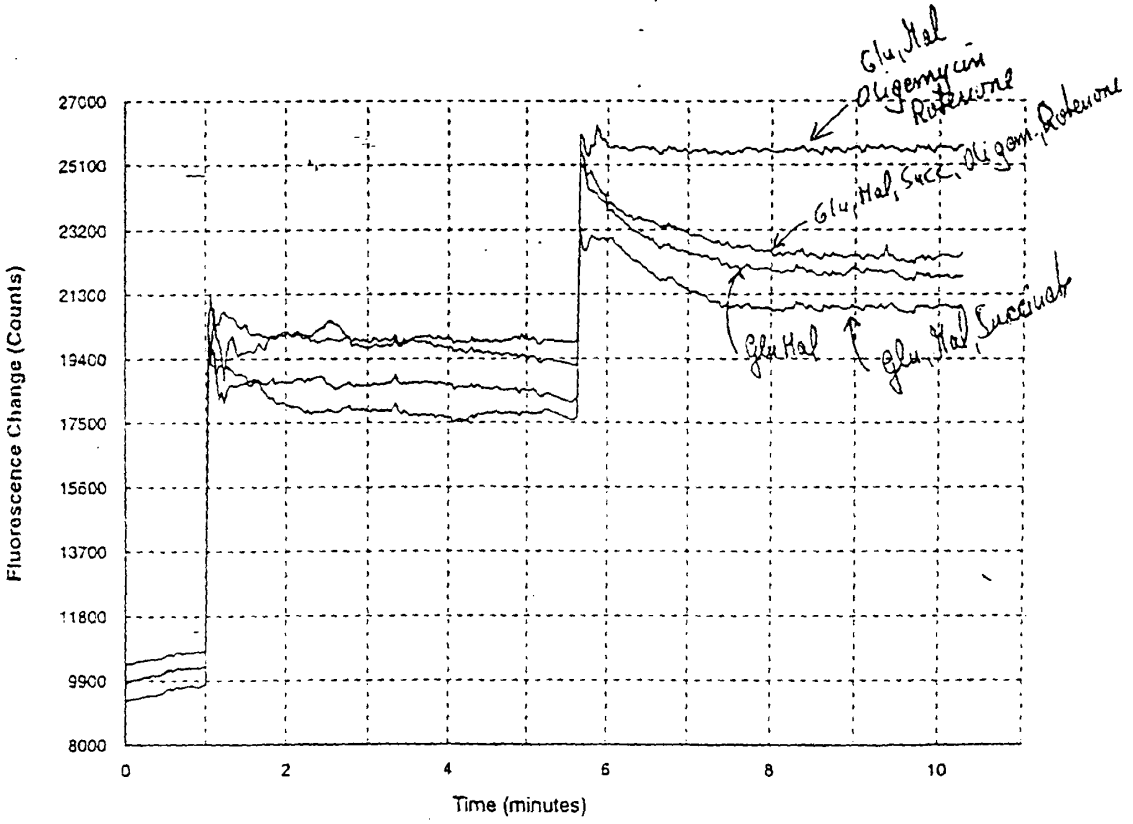

Glu, Hal
Oligomycin
Rotenone
Glu, Hal, Succ, Oligom, Rotenone
Glu Hal
Glu, Hal, Succinate
Fluorescence Change (Counts)
27000
25100
23200
21300
19400
17500
15600
13700
11800
9900
8000
0
2
4
6
8
10
Time (minutes)

FIGURE 8

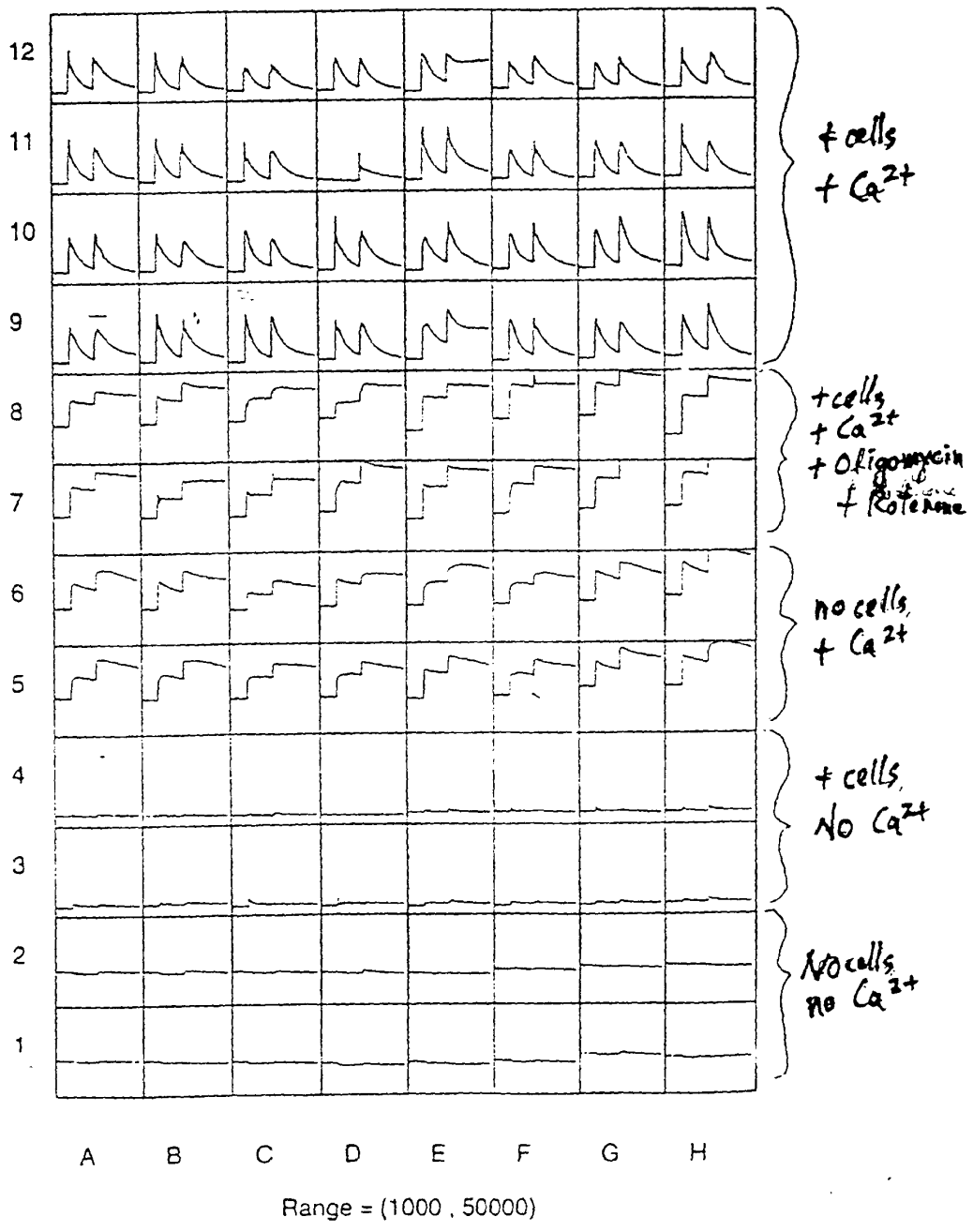
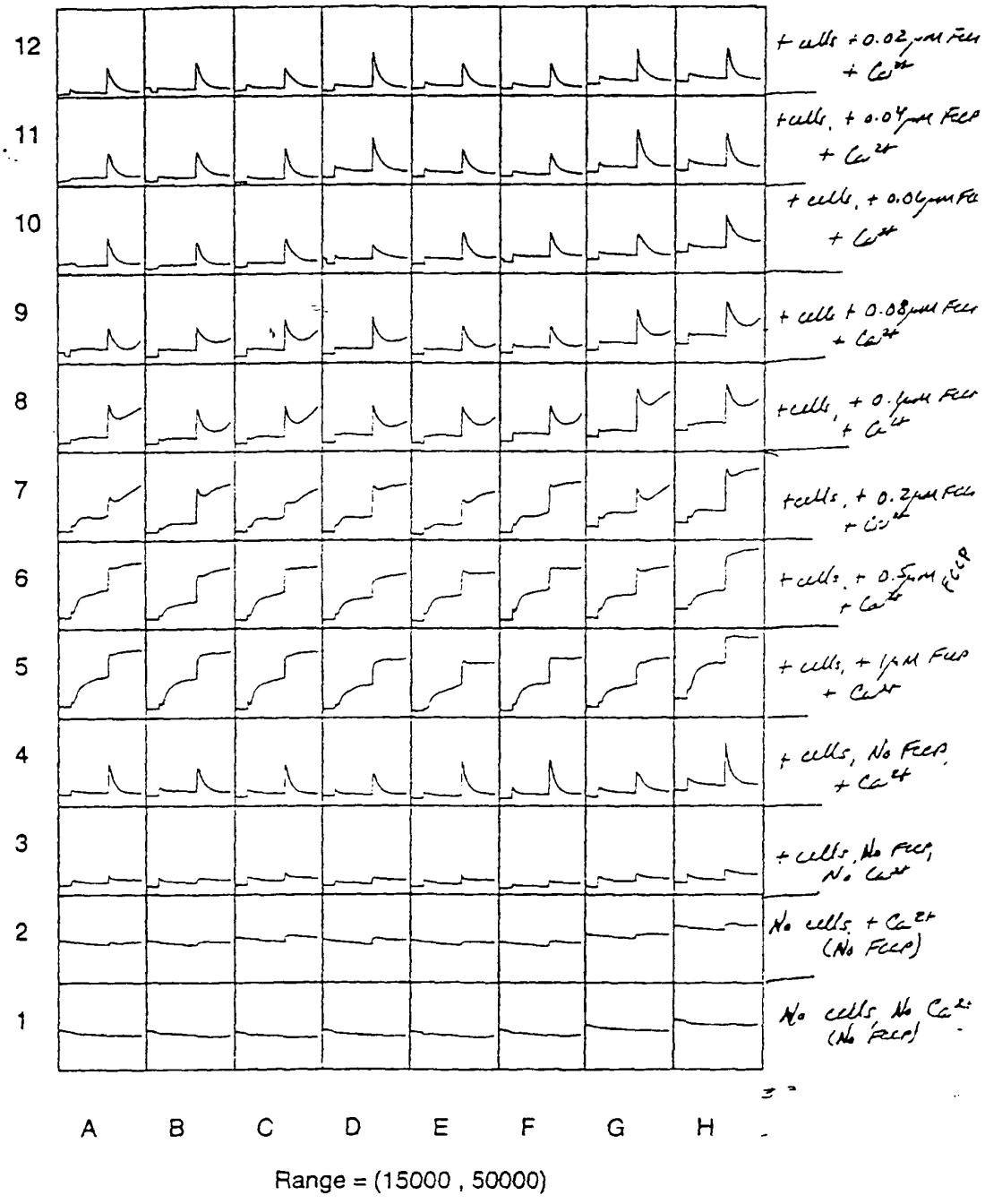

12
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
+ cells
+ Ca2+
+ cells
+ Ca2+
+ Oligomycin
+ Rotenone
no cells,
+ Ca2+
+ cells,
No Ca2+
No cells,
no Ca2+
Range = (1000 , 50000)

FIGURE 9



Range = (15000 , 50000)

FIGURE 10

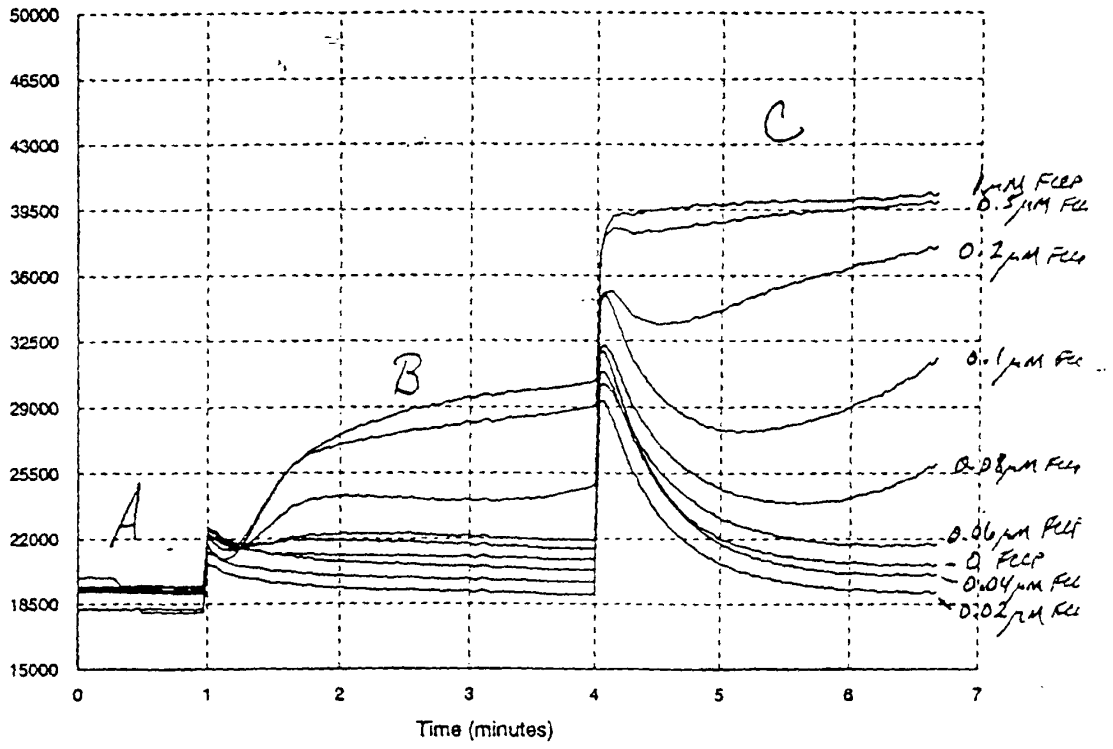

50000
46500
43000
39500
36000
32500
29000
25500
22000
18500
15000
0
1
2
3
4
5
6
7
Time (minutes)
Fluorescence Change (Counts)
A
B
C
1μM FCCP
0.5μM FCCP
0.2μM FCCP
0.1μM FCCP
0.08μM FCCP
0.06μM FCCP
0 FCCP
0.04μM FCCP
0.02μM FCCP

FIGURE 11

TOSTO "hOT59260

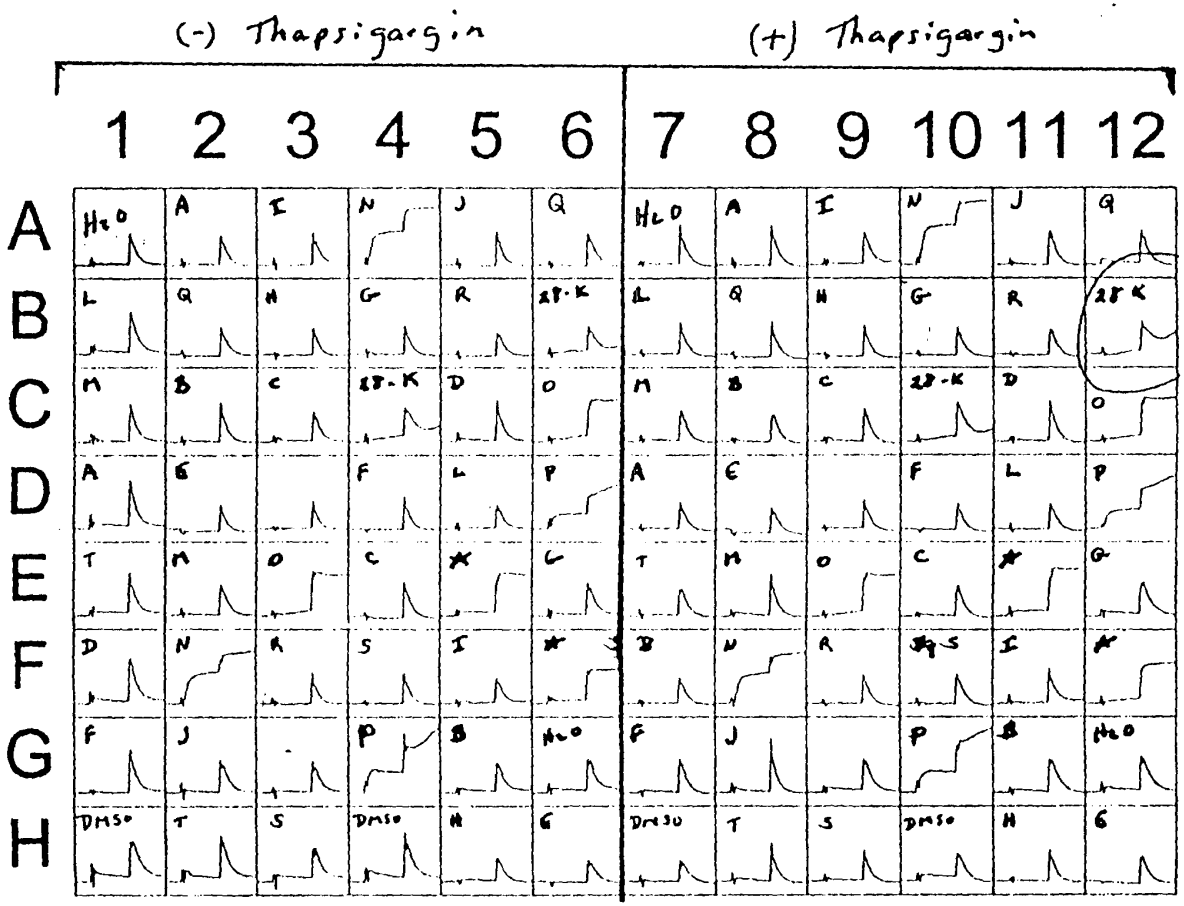
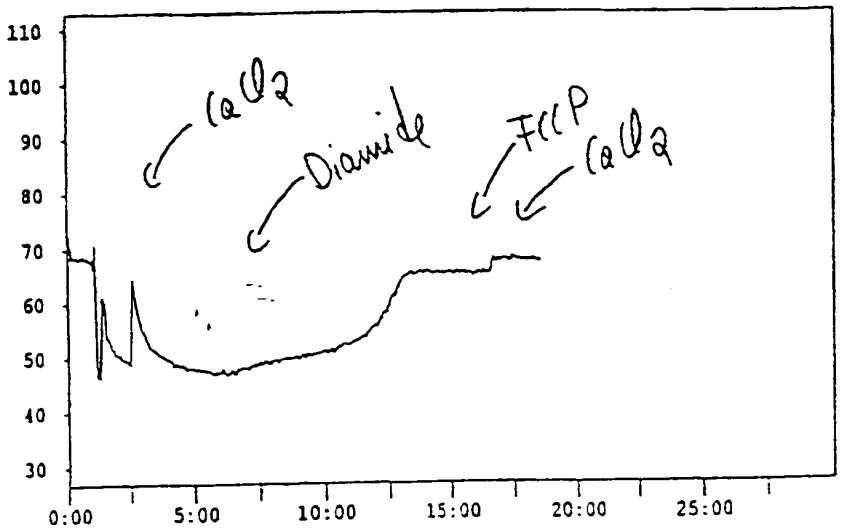


FIGURE 12

A



B

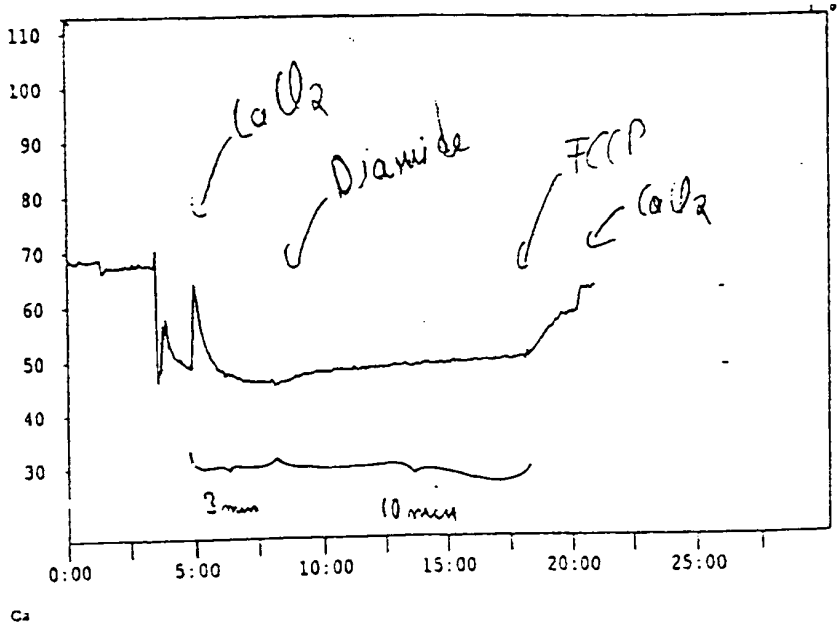


FIGURE 13A-B